



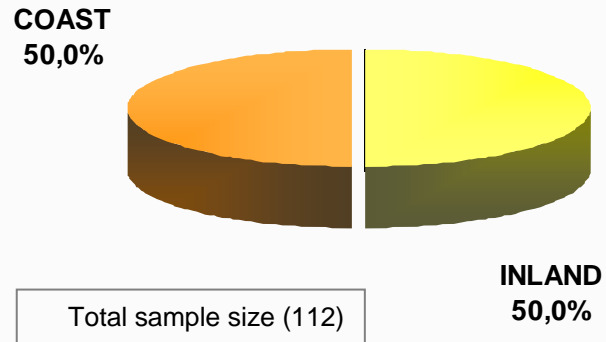
Seafood consumption at school: an overview

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General Secretary of FROM

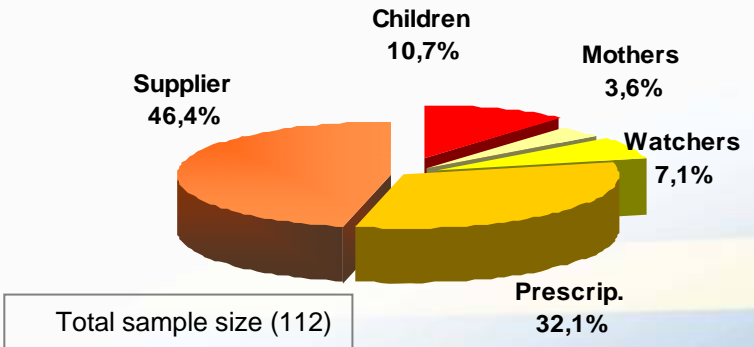


SAMPLE DISTRIBUTION: QUALITATIVE PHASE

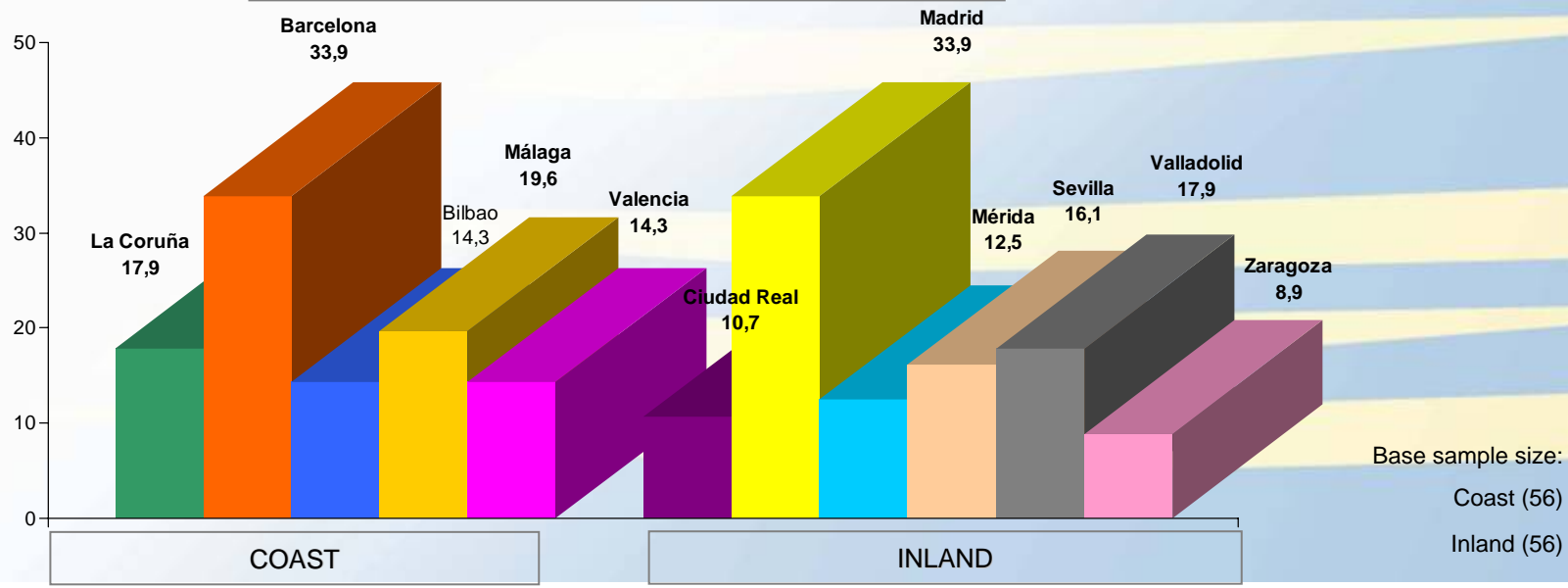
COASTAL-INLAND DISTRIBUTION



TYPES OF INFORMANTS



CITIES



SAMPLE DISTRIBUTION: QUANTITATIVE PHASE

➔ **1,147 primary school centers were visited by observers.**

➔ **Four variables were considered:**

- ✓ Types of schools: public school, private school state supported and foundation schools.
- ✓ Model of organization and management: external catering, school catering, school kitchen.
- ✓ Region.
- ✓ Habitat.



**SAMPLE
DISTRIBUTION:
QUANTITATIVE
PHASE II**

	SAMPLE SIZE %
TYPE OF SCHOOL	
PUBLIC SCHOOL	75.2
PRIVATE SCHOOL STATE SUPPORTED	21.3
FOUNDATION SCHOOL	3.6
MODEL OF ORGANIZATION AND MANAGEMENT	
EXTERNAL CATERING	45.8
SCHOOL CATERING	23.5
SCHOOL KITCHEN	30.7
REGION	
NORTEAST	21.9
LEVANTE	13.3
ANDALUCIA	16.5
CENTRE-SOUTH	12.7
CASTILLA Y LEON	8.6
NORTHWEST	21.2
CANARY ISLANDS	5.8
HABITAT (POPULATION)	
< 2,000	3.8
2,001-10,000	10.4
10,001-100,000	28.2
100,001-500,000	33
> 500,000	24.7



EVALUATION OF THE SCHOOL MEALS

➔ **Cooked school meals were perceived**

- ✓ Better quality food.
- ✓ Prepared at the moment, not reheated.
- ✓ Impeccable and customized cooking.
- ✓ Plentiful.
- ✓ Possibility of repeating.

➔ **External catering meals were perceived**

- ✓ Poorer raw material quality.
- ✓ Presence of frozen based or semi-prepared dishes.
- ✓ Temperature problems: reheated, cold or lukewarm meal.
- ✓ Tasteless, “fake” taste.
- ✓ Sometimes “scarce” rations or being unable to repeat.

FISH QUALITIES ACCORDING TO THE FIGURES INVOLVED IN THE PRESENCE OF FISH IN THE SCHOOL MENUS

NUTRITIONAL VALUE

With high-value nutritional proteins.
Fish contains phosphorus, calcium, vitamins.
Fish contains healthier fat than meat.
Etc.
"Good for the sight".
"It gives you energy, you become strong".
"Promotes good eye-sight"

HEALTHY

Good for a varied/balanced diet.
Healthier when children are sick and need an special care.
Have less fat than meat.

LIGHT AND DIGESTIBLE

Low fat content.
Ease to digest.
Good for soft diets.



FISH APPROVAL DEPENDING ON QUALITY AND TYPE

MORE ACCEPTED FISHES

Hake.

Sole.

White fishes.

Fried squids.

Mixed fried fish ...

FISH APPROVAL ACCORDING TO THE FORM OF PREPARATION

CHILDREN TEND TO ACCEPT

- ✓ **Boneless fishes, Without skin.**
- ✓ **Different presentations far removed from the concept of fish (sticks, shapes ...).**
- ✓ **Tempting garnishing (chips ...).**
- ✓ **Fish in bits, fillets but not the whole fish.**



CHILDREN'S KNOWLEDGE ABOUT FISH

➔ **VERY LITTLE** knowledge because of:

- ✓ **Low fish consumption.**
- ✓ Fish **hidden** in dishes.
- ✓ Non-consumption of **entire fish.**



INTERVENIENTS CRITERIA IN THE CHOICE OF TYPE AND FISH PRESENTATION

- ➔ Competitive **prices**.
- ➔ **Clean** fish and **without bones**.
- ➔ **Suitable:**
 - ✓ Easy to supply and store.
 - ✓ Easy to cook.
 - ✓ Easy to eat. Witout help or support from the carers: no bones, no skin ...
- ➔ Fish were **not rejected** by children.



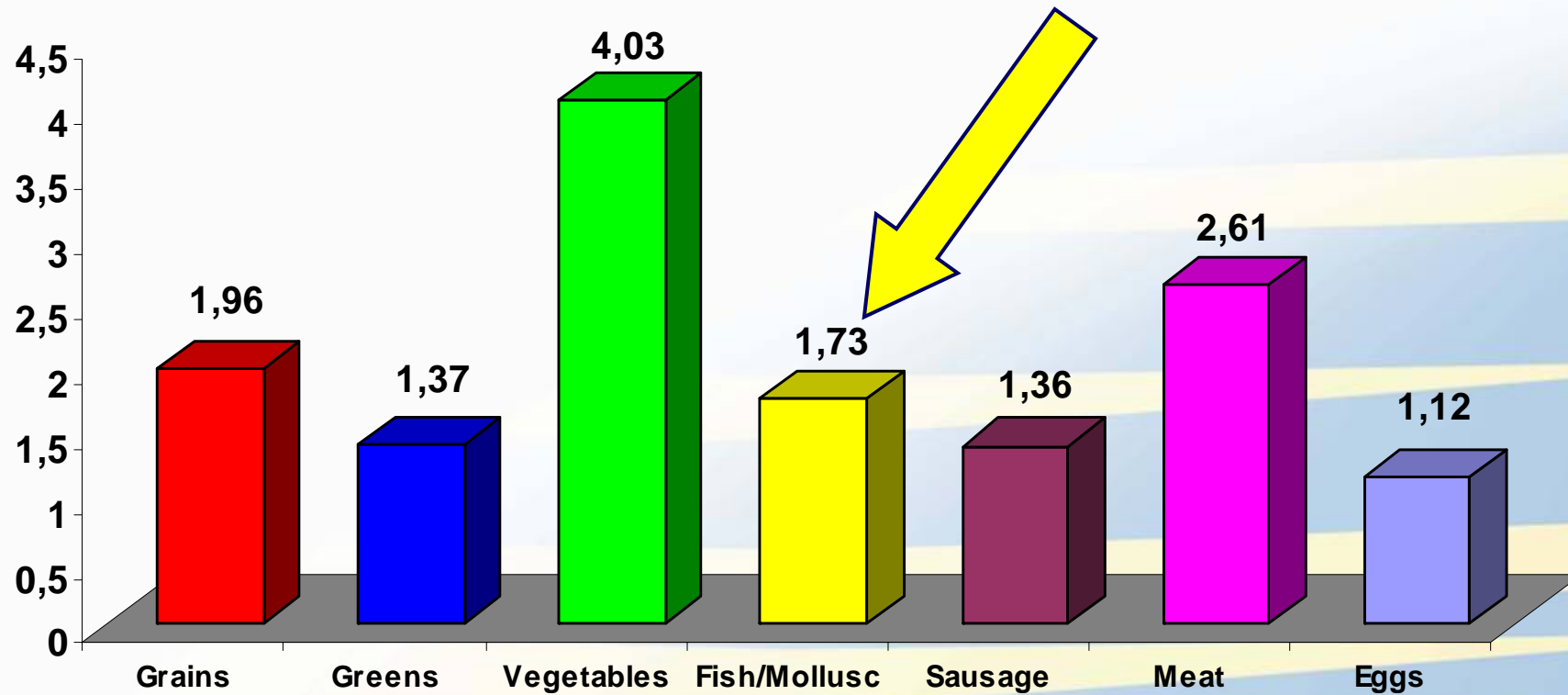


FISH CONSUMPTION IN THE SCHOOL DINNING HALLS

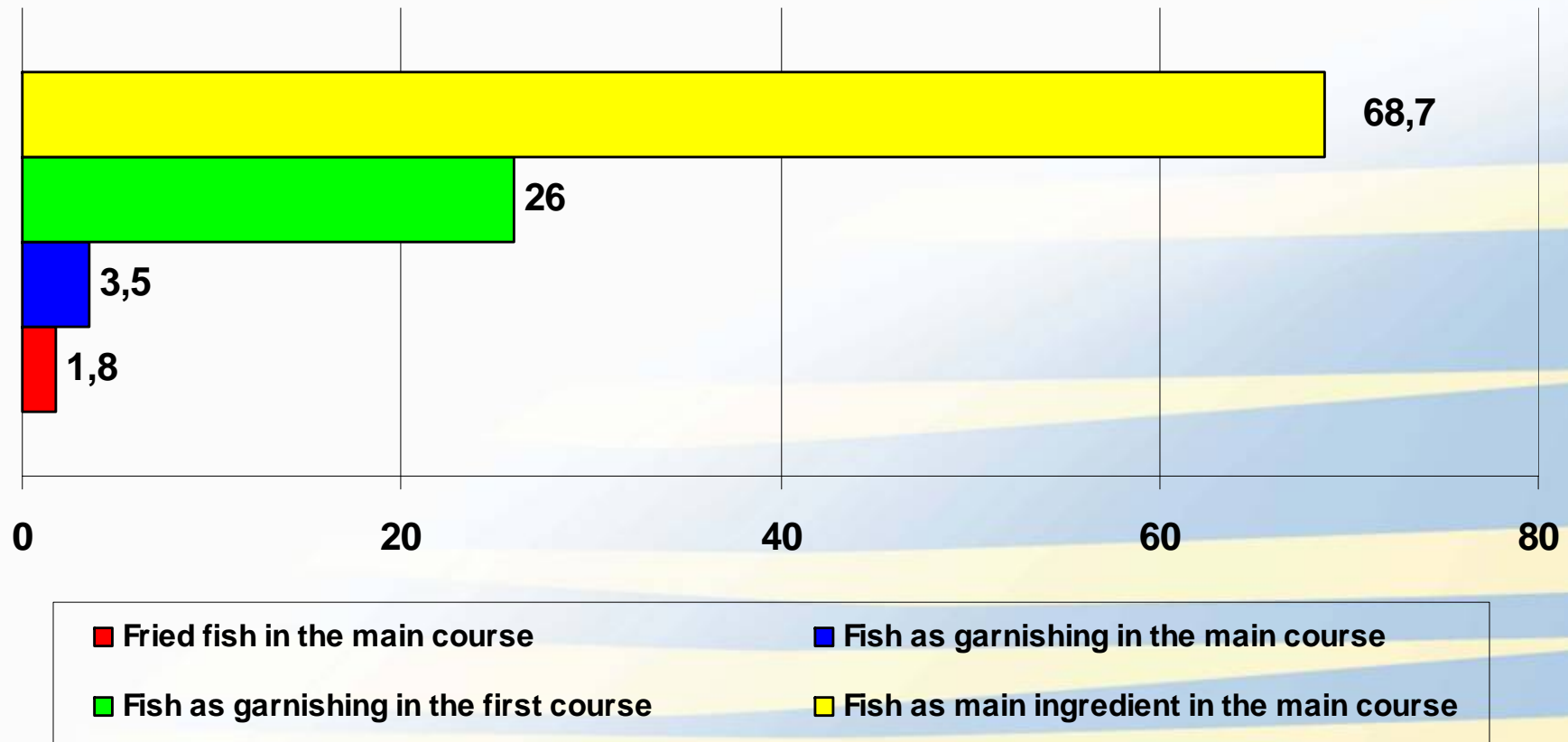
➔ **Monthly fish consumption:**

FREQUENCY	SCHOOL %
EVERY WEEK	89
EVERY 3 WEEKS	9
EVERY 2 WEEKS	2
ONCE A MONTH	1

FISH FREQUENCY IN THE SCHOOL MENU (1,147 SCHOOLS x 5 DAYS A WEEK = 5,735 MENUS EVERY DAY)



DISHES ACCORDING TO FISH IMPORTANCE (FROM THE 1,946 FISH DISHES OF THE 5,735 MENUS OF THE DAY SAMPLED)





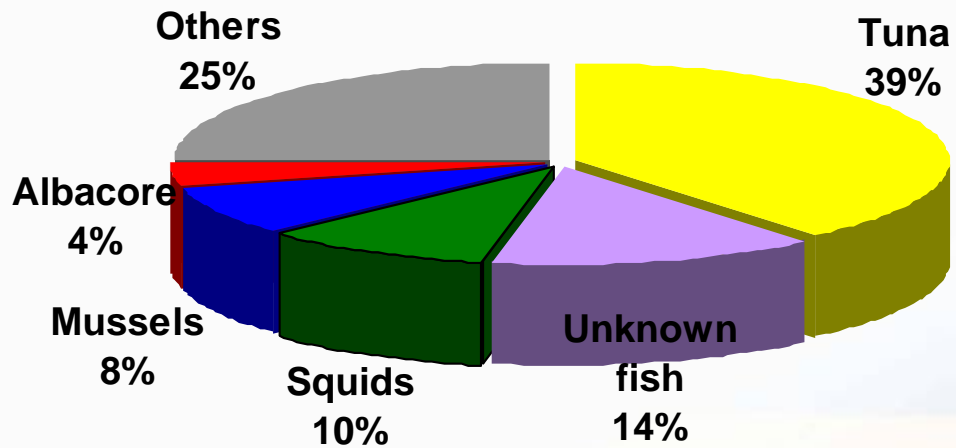
FISH CONSUMPTION

- ➔ **76.3 %** of children **FINISH** the food.
- ➔ **24 %** of children **DO NOT FINISH THE FISH.**
- ➔ **Average fish intake** for children is **87.3 gr.**

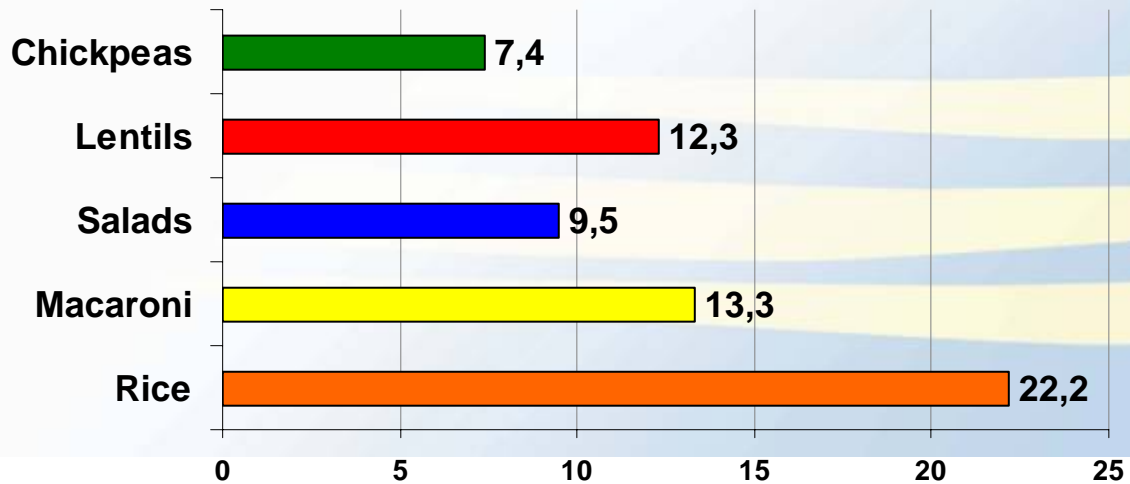
ANALYSES OF FISH TYPES PLANNED IN THE MONTHLY MENU

- ➔ **Predominance of WHITEFISH: Hake 34 %.**
- ➔ **The fish type used is not specified in the 14 % of the menus.**
- ➔ **TUNA (12,8%) and SQUIDS (6%) play a significant role.**
- ➔ **Frying is the most frequent preparation.**

FISH AS GARNISH IN THE FIRST COURSE



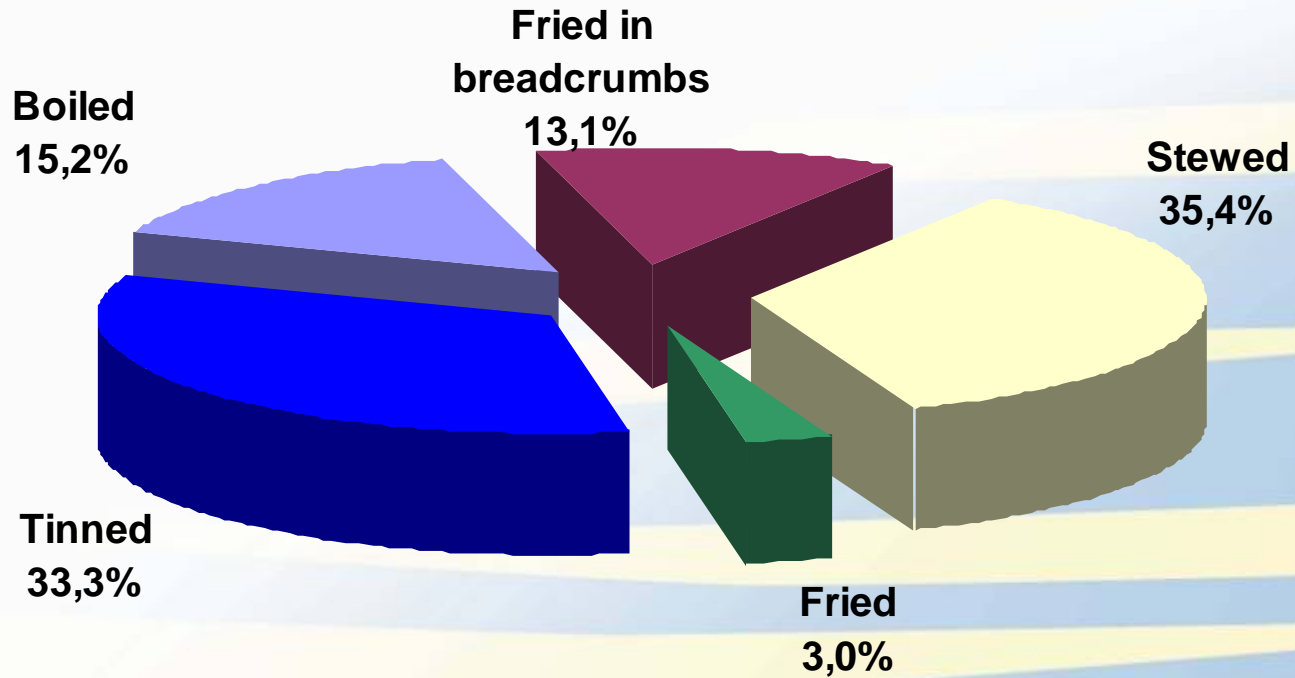
FISH TYPE



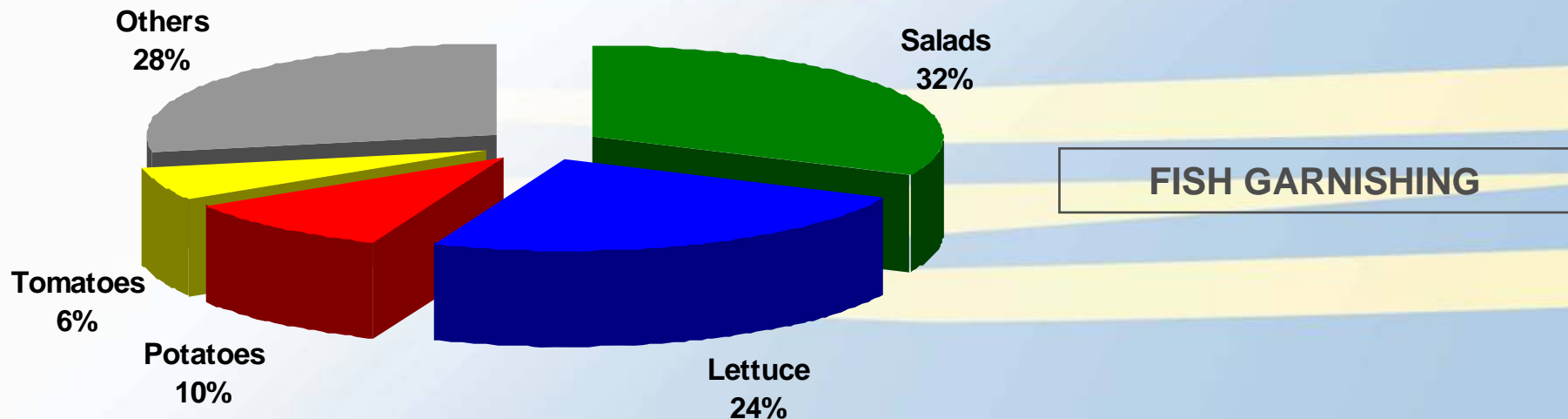
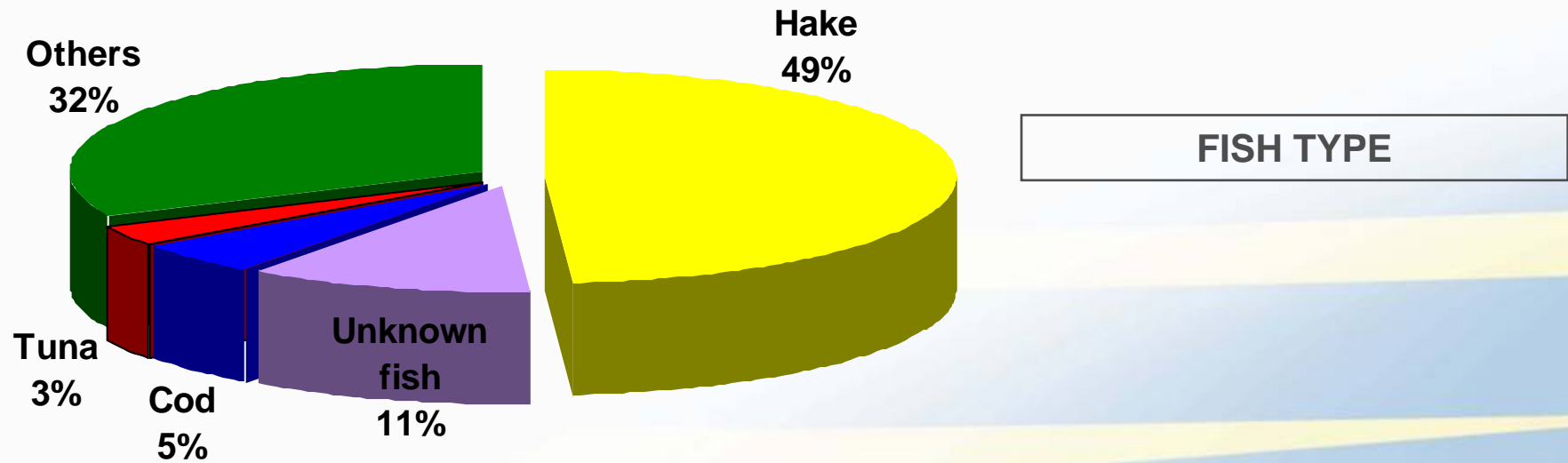
FIRST COURSE WITH FISH AS INGREDIENT

FISH AS GARNISH IN THE FIRST COURSE

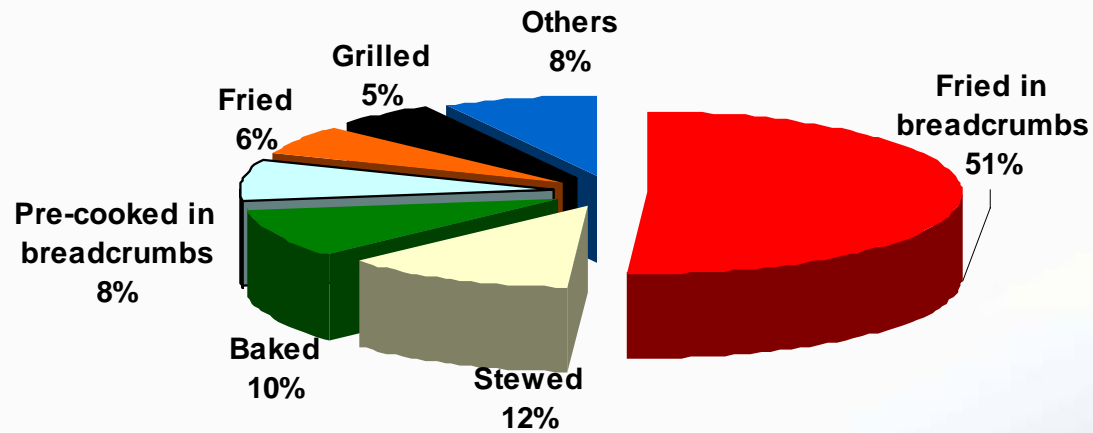
WAY OF COOKING



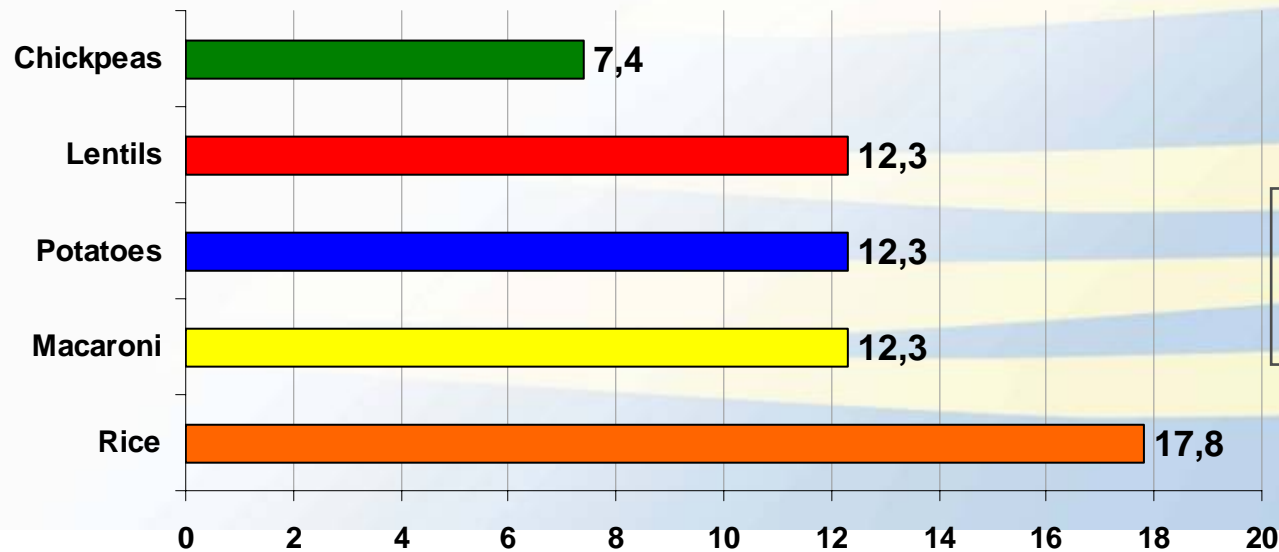
FISH AS MAIN INGREDIENT IN THE MAIN COURSE



FISH AS MAIN INGREDIENT IN THE MAIN COURSE



WAY OF COOKING



FIRST COURSE WHEN FISH IS THE MAIN COURSE



IN CONCLUSION

- ➔ **Insufficient fish consumption** in the school dining halls.
- ➔ **Fish served** in the school menus **possess scarce valuation**, sometimes causing **refusal** in the students.
- ➔ **Flavour and generally the organoleptic conditions of the fish served are NOT the most favourable for children approval.**



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